Dup 16/6/32

...Laboratory Branches,
Shanghai Municipal Police.

Material Reported on

Gas pistol and liquids for use in same. Handed in by Supt. Yorke.

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The pistol is designed for the ejection of liquid by means of compressed air. It is charged by removing the air valve at the base and introducing the liquid into the chamber. The valve is then replaced and air pumped in. In use, a trigger action withdraws a needle valve from its seating and establishes communication between the chamber and the nozzle and the liquid is ejected in the form of a fine spray.

At a demonstration the pistol was charged with the contents of one vial (about ½ fluid ounce) of liquid No.3 and a spray of liquid was thrown to a distance of some 10 to 12 feet. This was with the ordinary nozzle and not with the extension barrel.

The three liquids were in vials marked No.1, 2 and 3 respectively. Each vial held approximately ½ fluid ounce of liquid and this amount is apparently the charge for the pistol. The active basis of the liquids is volatile oil of mustard and the three samples differ in the amount of this ingredient present. Rough determinations indicate the following approximate amounts to be present.

Liquid No.1 .....70 percent
" No.2 .....65 " "
" No.3 .....32 " "

The remainder of the liquid in Nos.2 and 3 appears to be largely a fixed oil.

Pure volatile oil of mustard is a liquid with an intensely pungent odour and acrid taste. It is a powerful irritant and in contact with the skin causes almost immediate painful blistering.

A spray of either of the three liquids fired into the face would result in immediate painful injury to the eyes and skin and might possibly result in permanent injury to the eyes. Injury to the respiratory passages might also be caused.

(Sgd) F.E.S.Walker,
Analyst.

Commissioner of Public Health.

See Hongkew S.I.R. No 1673/31.